

Illinois Occupational Surveillance Program—Annual Report, Year 1

U60 OH009850-01

July 1, 2010-June 30, 2011

Principal Investigator:

Linda Forst, MD, MPH

Bona fide agent of the Illinois Department of Public Health (IDPH)

Professor and Division Director

Environmental and Occupational Health Sciences

University of Illinois at Chicago School of Public Health

2121 W. Taylor, MC 922

Chicago, Illinois 60612

Forst-L@uic.edu

1. Report the 19 Occupational Health Indicators annually.

The Illinois Occupational Surveillance Program reported the 19 Occupational Health Indicators for 2008 to NIOSH. As we gathered the specific indicators, we assembled many datasets from which these indicators are taken and we now have a data library that includes several databases from the State. We have a draft report that presents the 19 indicators and includes many years prior to 2008 and will have that completed for dissemination by the end of September, 2011, when we show a draft to our Advisory Board for comment. We will then edit and disseminate it.

Short term outcomes:

- 1) 19 OH Indicators for 2008 for Illinois assembled and submitted to NIOSH
- 2) Data library of several State databases has been established for further work

2. Establish a dynamic advisory board from government, business, academics, unions, non-profits, and worker groups; engage in priority setting activities with the Advisory Board based on surveillance results, literature reviews, and input from other state programs

The Advisory Board has been established and met twice during Year One of the project. In our first meeting we introduced the project overall, and talked about potential activities. In our second meeting we discussed ethical issues regarding disclosure of injury data to OSHA directly from trauma registry data or from trauma centers. We subsequently provided OSHA with a list of 3,377 cases of amputations, electrocutions and loss of an eye/s from workers compensation claims data for them to determine whether they had been informed of these cases.

Short term outcome

State OSHA provided with construction worker cases directly from the workers comp system to check that against their investigations.

Intermediate Outcome

Direct reporting and communication between OSHA and the Illinois Workers Compensation Commission is a new and is now embraced by IWCC.

3. Utilize trauma registry and ambulance databases as primary data sources;

We reported occupational injuries from the trauma registry in a 2007 publication. We have cleaned the entire trauma registry and are working with the Illinois Department of Public Health to provide clean flat files back to the trauma centers that reported the cases, with the intention of assisting the trauma centers in conducting analyses and forming the basis for research programs in interested centers (which we hope to collaborate on). As a result of this work, we were

contracted by the Cook County Department of Public Health to do a study of trauma system utilization in the southern part of the county. While this is not specifically related to occupation, it is the IOSP program that leveraged this activity; we expect this activity to leverage other work that is specifically related to occupational injury.

Short term outcome:

Cleaned the Illinois State Trauma Registry for use by IDPH and by individual trauma centers for targeted research

Intermediate outcome:

- 1) IOSP subsequently contracted by a county health department to conduct a study with this dataset
- 2) We have written research protocols and grant proposals to conduct individual surveillance of cases that are hospitalized in trauma units—pending.

4. Link records across databases to conduct more informative, complex data analyses

We have completed the cleaning and linkage of the Trauma Registry, Hospital Discharge, and Workers Compensation claims for occupational injuries. We have also finalized linking the Hospital Discharge databases with the Illinois Poison Center data. These are now available for use in research projects. We are working with a number of students to conduct research in this area. In the coming 2 years, we will be working on defining linkage criteria for merging pre-hospital ambulance data with medical records and begin work on acquiring and analyzing emergency room visits in Illinois.

Short term outcomes

- 1) Linkage of databases
- 2) Instruction of future occupational health practitioners in surveillance skills and theory

5. Disseminate findings through a website, list of stakeholders, and courses;

Our website is established, internally, displaying narrative and results of our work. It will go live in Year 2 of the project.

We are working with our Continuing Education group to harmonize our activities—do research that informs their outreach/training activities; provide data to them that better describes the occupational groups they are targeting.

We attended CSTE/SBS-OH meetings in Austin and Washington DC and national conferences to disseminate our work, learn from colleagues, and brainstorm new methods and programs to prevent occupational illnesses and injuries across the US.

Short term outcomes

- 1) Website developed to display our work and disseminate results
- 2) Presented our work at a national conference
- 3) Met with continuing education group

6. Evaluate our activities by establishing benchmarks, assessing the quality and quantity of work products and the number and characteristics of who we reach.

Benchmarks:

Classification Key for results being used to benchmark the program

- 1) potential outcomes findings, results, or recommendations that could impact workplace risk if used
- 2) intermediate outcomes - how findings, results, or recommendations have been used by others to influence practices, legislation, product design, safety program, training
- 3) end outcomes - how findings, results, or recommendations have contributed to documented reductions in work-related morbidity, mortality, and/or exposure.

1. Submission of OH Indicators to NIOSH—completed (Short term outcome; Benchmark: 1)

2. Dissemination of OH Indicators in Illinois
 - a. Multi-year report in progress (Short term outcome; Benchmark: 1)
3. Posters presented at conferences:
 - a. Matthew Hornyak, MS candidate and NIOSH Trainees: AIHA Occupational Injuries in Automobile Manufacturing, Portland, Oregon, June 2011 (Short term outcome—benchmark 1)
 - b. Colin Krupczak, MS candidate and NIOSH Trainee: presentation at AIHA: Amputations in Illinois Workplaces (short term outcome—benchmark 1)
 - c. Mark Wilson, student intern from Chiropractic school presented Falls in older workers at American Society of Safety Engineers, Chicago, June 2011 (short term outcome, benchmark 1)
4. Student Training Activities (short term outcomes--Benchmark: 1)
 - a. PhD Assistantship: Peter Ruestow, PhD candidate, was mentored in the conduct of data linkage of medical record data with the Illinois Workers' Compensation database. He will continue in the capacity of doing research projects utilizing these datasets.
 - b. Masters Thesis: Workers Compensation Claims in the Automobile Industry. A MS student (NIOSH IH Trainee, Matthew Hornyak) just defended his Masters thesis, describing the hazards associated with injuries in Auto Manufacturing. This required use of the datasets as well as input from the UAW. This will result in a publication in the coming year. We are planning an intervention project to target the companies with very high injury rates.
 - c. Masters Thesis. Occupational Amputations in Illinois. A MS student (NIOSH IH Trainee, Colin Crupczak) is completing thesis work. We will prepare a manuscript for publication.
 - d. Independent student research project: Developed a system of linking hospital records with poison data collected by the Illinois Poison Center (EOHS student: Ember Vannoy). This work will be presented to the Director of the Illinois Poison Center and the findings will be submitted for publication. This work will allow us to gather more detailed information on occupational exposures that result in acute poisoning.
 - e. PhD Dissertation: Injuries in Law Enforcement (Freda Holloway-Beth, PhD candidate). This comprehensive project will be looking at injuries caused to civilians during altercations with law enforcement, as well as injuries suffered by law enforcement personnel and the level of disability resulting from on the job injuries.
 - f. Independent research: (Chiping Nieh, PhD Candidate) The work focussed on verifying the various databases used by the Illinois Poison Center, in order to identify any reporting discrepancies or errors within the systems. This work formed the basis for our current work of linking medical record data with the Illinois Poison Center.
 - g. PhD Dissertation: Shirley Sheppard is currently being trained to begin research on home health care workers and the safety issues they face. Her work will be used for her dissertation.
 - h. Surveillance lectures utilizing IOSP garnered data for matriculated public health students graduate students: delivered in EOHS 400 Principles of Env and Occ Health; EOHS 551 Occupational Diseases; EOHS 571 Injury Epidemiology and Control
5. Manuscripts/publications

- a. We have two manuscripts completed and will be submitted soon. The research looked at ethnic disparities in workers' compensation among injured construction workers, and identifying in-hospital measures that can be used to predict days away from work and level of long term disability directly affecting a workers ability to carry out his job.
- 6. Grants and contracts leveraged by IOSP (Intermediate Outcomes—benchmark 2)
 - a. Illinois Pesticide Surveillance Program proposal written to EPA. Not funded
 - b. Trauma System Utilization. Cook County Department of Public Health. Funded, in progress.
 - c. OSHA Amputation Policy Review: grant submitted to Robert Wood Johnson Foundation. Pending review.
- 7. Continuing Education/Outreach/Intervention activities
 - a. Workers compensation claims for construction injuries/illnesses shared with OSHA to match with OSHA investigations—100% match (Intermediate Outcome--Benchmark: 2)
 - b. Planning for CE courses--in progress